

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

15. (Currently amended) A method for correcting positioning errors in rock drilling occurring in a drilling rig comprising a boom and a rock drill, the boom attached at one end thereof to a carrier and being turnable in relation to it about one or more joint axes of one or more respective joints, the rock drill being turnably mounted to another end of the boom, the apparatus arranged in a drilling position for drilling a hole in a way that the boom is controlled using control devices of the drilling rig wherein the boom is subjected to various movements until the boom is in a desired set position, wherein a deviation of the boom's actual ~~position~~ turning angle about one of said joint axes from a ~~calculated~~ theoretical position desired turning angle about said one of said joint axes is measured using a movement sensor, and the boom's position is corrected on the basis of the measured deviation, the method comprising the steps of:

A) storing, in a memory, a first set of deviations obtained by turning the boom through incremental turning angles about said one of said joint axes from a reference position to predetermined angularly spaced intervals about ~~a first of the joints~~ said one of said joint axes, and measuring using a movement sensor, for

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each such interval, a deviation of the boom position from a desired incremental turning angle ~~theoretical position~~, and

B) using the stored first set of deviations during a subsequent drilling operation as correction values for locating the boom ~~in the~~ at the desired incremental turning angles ~~theoretical positions~~ corresponding to the respective predetermined angularly spaced intervals about ~~the first joint~~ said one of said joint axes.

16. (Currently amended) The method according to claim 15 wherein step A further comprises storing a second set of deviations obtained independently of the first set of deviations by turning the boom through incremental turning angles about a second one of said one or more joint axes of one or more respective joints from a reference position to predetermined angularly spaced intervals about a second one of the joints ~~said second one of said one or more joint axes~~ and measuring using a movement sensor, for each such interval, a deviation of the boom position from a ~~theoretical position~~ desired incremental turning angle; step B comprising using the stored second set of deviations during the drilling operation as correction values for locating the boom ~~in the theoretical positions at~~ the desired incremental turning angles corresponding to the respective predetermined angularly spaced intervals about ~~the second joint~~ said second one of said one or more joint axes.

17. (Currently amended) The method according to claim 15 wherein an outer section of the boom is linearly extendable and retractable relative to an inner section thereof, step A further comprising storing another set of deviations obtained independently of the first set of deviations by moving the outer section from a reference position to linearly spaced intervals and measuring, for each linearly spaced interval, a deviation of the boom outer section from a ~~theoretical~~ desired position; step B comprising using the stored other set of deviations during the drilling operation as correction values to locate the boom in the ~~theoretical~~ desired positions corresponding to the linearly spaced intervals.

18. (Previously presented) The method according to claim 15 wherein deviations occurring at a location between two of the angularly spaced intervals is determined by calculating an approximation based upon the measured deviations at the two angularly spaced intervals.

19. (Currently amended) Rock drilling apparatus comprising a carrier, a boom having a first end attached to the carrier and turnable about respective joints in relation to the carrier, a rock drill attached turnable to the other end of the boom, joint sensors indicating the positions of the boom joints, and control devices for controlling the boom for movement to a drilling position for drilling a hole, the apparatus further comprising:

a memory device for storing a first set of deviations obtained by turning the boom through incremental turning angles about a first joint axis of the joints from a

reference position to predetermined angularly spaced intervals about a ~~first said~~
first joint axis of the joints, and measuring using a movement sensor for each such
interval a deviation of the boom position from a ~~theoretical~~ desired position, and

a calculating device operable during a drilling operation for using the stored first
set of deviations as correction values for locating the boom in the ~~theoretical~~
desired positions corresponding to the respective intervals about the first joint
axis.

20. (Currently amended) The apparatus according to claim 19 wherein the
memory device is operable to store a second set of deviations obtained independently of the
first set of deviations by turning the boom through incremental turning angles about a
second joint axis of said joints from a reference position to predetermined angularly spaced
intervals about a ~~second of the joints~~ said second joint axis and measuring using a
movement sensor, for each such interval, a deviation of the boom position from a
~~theoretical~~ desired position; the calculating device being operable to use the stored second
set of deviations during the drilling operation as correction values for locating the boom in
the ~~theoretical~~ desired positions corresponding to the respective intervals about the second
joint axis.

21. (Currently amended) The apparatus according to claim 19 wherein an outer
section of the boom is linearly extendable and retractable relative to the inner section

thereof, the memory device being operable to store another set of deviations obtained independently of the first set of deviations by moving the outer section from a reference position to linearly spaced intervals and measuring, for each linearly spaced interval, a deviation of the boom outer section from a ~~theoretical~~ desired position; the calculating device being operable to use the stored other set of deviations during the drilling operation as correction values to locate the boom in the ~~theoretical~~ desired positions corresponding to the linearly spaced intervals.

22. (Currently amended) The apparatus according to claim 19 wherein the first joint axis is parallel to a rotary axis of the rock drill.